

**Conclusions:** Saliva becomes more visco-adhesive and patient reported xerostomia worsens as RT progresses. However, there is no relevant correlation between objective and subjective measures of xerostomia. The addition of LMS-611 to thick, sticky saliva restores its fluidity ex-vivo at concentrations of 10mg/ml and 20mg/ml.

#### EP-1287

Quality of life improvement after the use of intranasal fentanyl in pectin in radiation induced mucositis

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**Purpose/Objective:** To assess the impact in quality of life of the use of intranasal fentanyl in pectin (INFP) as a treatment for intake related breakthrough pain episodes in patients presenting with radiation induced mucositis.

**Materials and Methods:** As part of the prospective observational GIC-FEN-2012-01 study (NCT02050503), quality of life was evaluated using the Spanish version of the EORTC QLQ-C30 questionnaire prior to INFP titration (after proper baseline pain control with modified release opioids) and following at least ten episodes of intake related breakthrough pain treated with the dose of INFP determined in titration. Fifty five patients presenting with oropharyngeal mucositis (41.8% grade 3) with controlled baseline pain were initially enrolled in this study. Thirty three patients underwent titration successfully and completed at least ten treated episodes of intake related breakthrough pain. QLQ-C30 scores before and after the introduction of INFP were compared in that subgroup.

**Results:** Raw scores of the outcome of QLQ-C30 were analysed. In functional scales, significant differences were observed in role functioning ( $p<0.001$ ), emotional functioning ( $p=0.005$ ), cognitive functioning ( $p<0.001$ ) and social functioning ( $p=0.014$ ). In symptoms scales/items, significant differences were observed nausea and vomiting ( $p=0.002$ ), dyspnoea ( $p<0.001$ ) and appetite loss ( $p=0.044$ ), constipation ( $p=0.002$ ), diarrhoea ( $p<0.001$ ) and financial difficulties ( $p<0.001$ ). Significant differences were also observed in global health status score. Finally, significant differences were detected in overall standardised QLQ-C30 score ( $p<0.001$ ).

**Conclusions:** Quality of life was improved after the addition of INFP as a treatment of intake related breakthrough pain episodes to patients presenting with radiation induced oropharyngeal mucositis. Data regarding effectiveness, safety and toxicity profile is currently under analysis as part of the GIC-FEN-2012-01 study.

#### EP-1288

An analysis of the association of target motion with GTV, location and Child-Pugh score in SBRT of liver cancer

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**Purpose/Objective:** To evaluate the association of target motion with target size (GTV), location and Child-Pugh score in Stereotactic Body Radiation Therapy (SBRT) of liver cancer by CyberKnife.

**Materials and Methods:** Translational motion data of 146 liver cancer patients, who were previously treated with free breathing under tumor tracking, were analyzed. Before treatment 3-8 gold fiducial markers (0.8x5mm) were implanted near target in order to be tracked by the tumor tracking system. Target motion data was automatically recorded in the log files of motion tracking system. Each of the following clinical factors was evaluated to determine its correlation to the amplitude of movement: target location (liver lobe), Child Pugh score, GTV size, and intra-fraction treatment time.

**Results:** Target location was found correlated with the translational motion in Superior / Inferior (SI) ( $p=0.021$ ) and Left / Right (LR) directions ( $p=0.007$ ) but not Anterior / Posterior (AP) direction ( $p=0.398$ ). The correlation of Child Pugh score and GTV size with target motions in SI, LR and AP directions were not significant. Intra-fraction treatment time significantly affected target translational motion in SI ( $p=0.02$ ) and LR ( $p=0.005$ ), while it was insignificant in AP-direction ( $p=0.085$ ). However, the correlation was fairly weak with R-square = 0.037 (SI) and 0.055 (LR) respectively.

**Conclusions:** Analysis of the treatment log files in SBRT of liver cancer patients demonstrated that the target motions in SI and LR directions caused by respiratory motion were correlated with the location of target. The change in target motion amplitude showed no apparent relationship with Child-Pugh scores and GTV sizes, but a fairly weak relationship with the intra-fraction treatment time.

#### EP-1289

Patterns of practice in palliative radiotherapy for bleeding tumors in the Netherlands

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**Purpose/Objective:** Bleeding is a frequent symptom in patients with advanced cancer. Palliative radiotherapy (RT) is one of the treatment options to manage bleeding. Although